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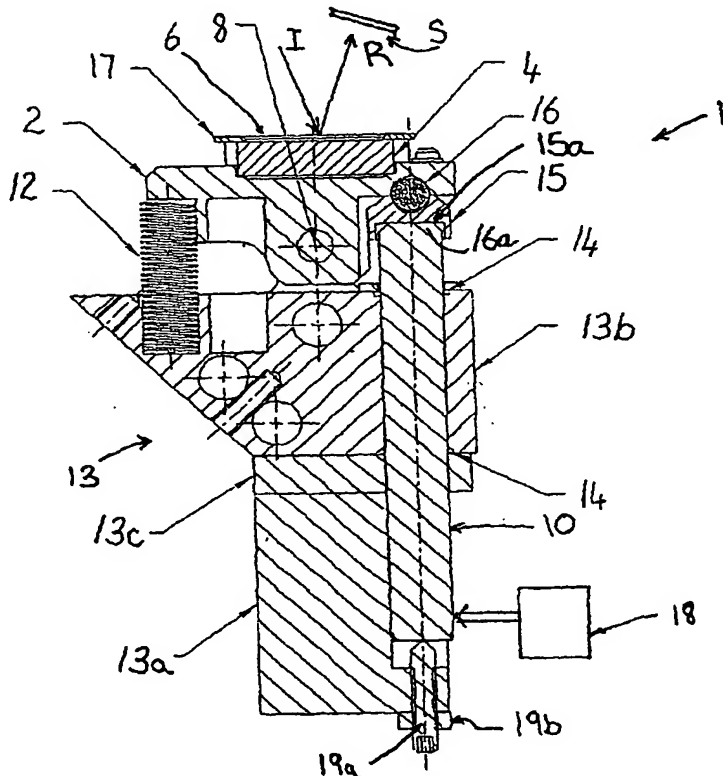
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(54) Title: **SCANNING DEVICE AND METHOD OF SCANNING AN OPTICAL BEAM OVER A SURFACE**



(57) **Abstract:** An optical scanning device (1) to scan an optical beam over a surface (S). The optical scanning device (1) uses a piezoelectric actuator (10) acting on a platform (2) that carries a mirror (4) to pivot the platform (2) about a pivot (8). Voltage is applied to the piezoelectric actuator (10) to pivot the platform (2) about the pivot (8). Changes in the applied voltage result in the angle at which the beam is reflected by the mirror (4) being altered. In this way, the reflected beam (R) can be scanned to different locations on the surface (S). Providing two such optical scanning devices (1a, 1b) or using two piezoelectric actuators (10aa, 10bb) acting on a single platform (2) enables two dimensional scanning of the surface (S) by the optical scanning device/s (1, 1a, 1b). The optical scanning device (1) of the present invention may be used in refractive eye surgery laser apparatus.